UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,731	10/25/2005	Seung-Que Lee	CU-4274 WWP	8611

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EXAMINER
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ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	**Applicant(s)**
Office Action Summary	10/539,731	LEE ET AL.
	Examiner	**Art Unit**	
	Sai-Ming Chan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 October 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 June 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on July 8, 2004 have

been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claims 1-7 are rejected under 35 US.C. 101 because the claimed invention is

directed to an abstract idea. Claims 1-7 state a protocol embodying system or method in

the GGSN. Since a protocol could be considered an abstract idea, the subject matter

claimed in Claims 1-7 are deemed abstract idea. Appropriate correction to the

specification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating

obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Giustina et al. (U.S. Patent Publication # 20030002480), in view of **Eriksson et al.**

(U.S. Patent Publication # 20040141393).

Consider **claim 1**, Giustina et al. clearly disclose and show a protocol embodying

system in the GGSN (fig. 2 (GGSN), paragraph 0004) including a GPRS (general

packet radio service) network (fig. 2, paragraph 0004 (GPRS)) which includes

protocols of first and second network layers (fig. 2 (GGSN(L1, L2)), paragraph 0005

(GGSN connects to PDN over an interface)), and respective protocols of a transfer

layer (fig. 2 (GGSN(UDP/TCP))) and the GPRS tunneling (fig. 2 (GTP), paragraph

0003 (GTP)), and converts user data into IP packets and IP packets into user data (fig.

2 (GGSN (UDP/TCP and IP)), paragraph 0026); and a PDN (public data network) (fig.

2 (Gi), paragraph 0005 (GGSN connects to external PDN)) which is connected to the

GPRS network (fig. 2 (Gi), paragraph 0004), and uses the protocols of the first and

second layers (fig. 2 (L2 and L1)) to transmit the IP packets to the outside or the GPRS

network (fig. 2 (Gi), paragraph 0004), comprising an IP layer (fig. 2 (GGSN (IP))),

provided between the GPRS network and the PDN (fig. 2 (Gi), paragraph 0005 (GGSN

connects to external PDN)), for performing routing between the two networks (abstract

(GGSN is the gateway to the external data network)), and performing routing between

the protocols of the first and second network layers and the transfer layer protocol on

the GPRS network (paragraph 0009 (GGSN for routing)),

However, Giustina et al. do not specifically disclose virtual driver.

In the same field of endeavor, Eriksson et al. clearly show a virtual driver (fig. 18

(device driver), paragraph 85 (IP module and driver work together to forward packets))

provided on the lower part of the IP layer (fig. 18 (IP module -> device driver)),

connected to the protocol of the GPRS tunneling (fig. 18 (tunnel synthesizer and routing

algorithm), paragraph 0085 (tunnel type)) provided to the upper part of the IP layer (fig.

18 (IP module)) on the GPRS network, and operable as the lower interface of the IP

layer (fig. 18 (IP module -> device driver)).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of invention to incorporate a protocol embodying system, as taught by Giustina

et al., and demonstrate the virtual driver for IP layer, as taught by Eriksson et al., so that

system configuration will be more efficient.

Consider **claims 2 and 3**, and **as applied to claim 1 above**, Giustina et al.

clearly disclose and show the data transmitted from the GPRS network (fig. 2,

paragraph 0004 (GPRS)) are passed through the protocols of the first and second

network layers (fig. 2) and converted into the IP packets through the IP layer (fig. 2

(GGSN (IP)), paragraph 0039), the transfer layer (fig. 2 (UDP/TCP)), and the GPRS

tunneling (fig. 2 (GTP), paragraph 0003 (GTP)) so that the IP packets are output to the

PDN through the protocols of the first and second layers of the PDN (fig. 2 (Gi),

paragraph 0005 (GGSN connects to external PDN)).

However, Giustin et al. do not specifically disclose the virtual driver.

In the same field of endeavor, Eriksson et al. clearly show the virtual driver (fig.

18 (device driver), paragraph 85 (IP module and driver work together to forward

packets)) is connected to the IP layer (fig. 18 (IP module -> device driver)).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of invention to incorporate a protocol embodying system, as taught by Giustina

et al., and demonstrate the virtual driver for IP layer, as taught by Eriksson et al., so that

system configuration will be more efficient.

Consider **claim 4**, and **as applied to claim 1 above**,

claim 7, and **as applied to claim 6 above**,

Giustina et al. clearly disclose and show a protocol embodying system, wherein a

reporting process (figs. 5, 6&7), paragraphs 0045, 0049 and 0058) with the IP in

advance in order to process the dynamic and static addresses (paragraph 0012

(dynamical and static addresses)) of the mobile stations (fig. 2 (MS)) belonging to the

GGSN (fig. 2 (GGSN)) during the process of transmitting the IP packets provided from

the PDN to the GPRS network (fig. 2 (Gi), paragraph 0005 (pdu sent from pdn to ms)).

However, Giustin et al. do not specifically disclose the virtual driver.

In the same field of endeavor, Eriksson et al. clearly show the virtual driver (fig. 18 (device driver), paragraph 0085 (IP module and driver work together to forward packets), paragraph 0086 (L4FE interface with driver for bearer if necessary)) is connected to the IP layer (fig. 18 (IP module -> device driver)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a protocol embodying system, as taught by Giustina et al., and demonstrate the virtual driver for IP layer, as taught by Eriksson et al., so that system configuration will be more efficient.

Consider **claim 5**, Giustina et al. clearly disclose and show a protocol embodying method in the GGSN, comprising: (a) when receiving a packet at a GGSN from a GPRS network (fig. 2 (Gi), paragraph 0005), transmitting a message tunneled through protocols (fig. 2 (GGSN(L1 and L2), paragraph 0005) of first and second layers of the GPRS network to an IP (fig. 2 (GGSN(IP)), paragraph 0005) ; and generating an IP packet (fig. 2 (UDP/TCP and IP), paragraph 0005); (b) transmitting the IP packet generated in (a) to the IP (fig. 2 (UDP/TCP and IP), paragraph 0005).

However, Giustin et al. do not specifically disclose virtual driver and message cancellation.

In the same field of endeavor, Eriksson et al. clearly show allowing tunneling of the tunneled message to be canceled at a GPRS tunneling protocol (fig. 18 (tunnel synthesizer), paragraph 0085 (synthesizer is invoked only if packet should be tunneled))

through a protocol of a transfer layer (fig. 18 (tunnel synthesizer and routing algorithm),

paragraph 0085) according to routing of the IP.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of invention to incorporate a protocol embodying system, as taught by Giustina

et al., and demonstrate the virtual driver and message cancellation, as taught by

Eriksson et al., so that system configuration will be more efficient.

Consider **claim 6**, Giustina et al. clearly disclose and show a protocol embodying

method in the GGSN, comprising: (a) when receiving an IP packet at a GGSN from a

PDN (public data network) (paragraph 0005 (pdu from pdn to GGSN)), transmitting the

IP packet to an IP through protocols of first and second layers (fig. 2 (Gi), paragraph

0005 (GGSN connects to external PDN)); and outputting the tunneled message to the

GPRS network through a transfer layer protocol, the IP, and protocols of the first and

second layers (fig. 2 (GGSN), paragraph 0005).

However, Giustin et al. do not specifically disclose virtual driver.

In the same field of endeavor, Eriksson et al. clearly show (b) transmitting the IP

packet transmitted to the IP in (a) to a virtual driver (fig. 18 (device driver), paragraph

85 (IP module and driver work together to forward packets)), and allowing the virtual

driver to transmit the IP packet to a GPRS tunneling protocol of the GPRS network (fig.

18 (tunnel synthesizer), paragraph 0085 (tunnel synthesizer performs appropriate

action)); and (c) converting the IP packet transmitted to the GPRS tunneling protocol in

(b) into a tunneled message (fig. 18 (tunnel synthesizer), paragraph 0085 (tunnel

synthesizer performs appropriate action)).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of invention to incorporate a protocol embodying system, as taught by Giustina

et al., and demonstrate the virtual driver, as taught by Eriksson et al., so that system

configuration will be more efficient.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed**

to:

> Commissioner for Patents
> P.O. Box 1450
> Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

> Customer Service Window
> Randolph Building
> 401 Dulany Street
> Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Sai-Ming Chan
S.C./ sc

December 11, 2007

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